



In The Claims:

1. (Currently Amended) A method of classifying [a plurality of items] an item of unknown classification from at least one class of interest as authentic or spurious, comprising:

receiving [a probability distribution for a plurality of authentic items within the at least one class of interest] input data representing items of known classification;

[receiving a] generating an output representing class-specific probability distributions [for a plurality of spurious items outside the at least one class of interest] based on the received input data;

[combining the authentic and spurious probability distributions] constructing a transform for each class of interest based on the output; and

transforming the [combined] probability distributions from the at least one class of interest onto a normalized scale based on the transform for the at least one class of interest, the scale having a plurality of values indicative of the authentic or spurious nature of the unclassified item and from which the item can be classified.

2. (Currently Amended) A method according to claim 1, further comprising [defining] selecting at least one decision [rule] criteria based on the normalized scale and independent from the [authentic and spurious] probability distributions from which the item[s] of unknown classification [are modeled] is classified.

3. (Previously Presented) A method according to claim 1, wherein the step of transforming comprises:

defining at least two regions of the [combined probability distributions] output;
and

mapping the at least two regions onto the normalized scale.

4. (Currently Amended) A method according to claim 1, wherein the values of the normalized scale range[s] from 0 to 100.
5. (Previously Presented) A method according to claim 3, wherein the mapping is performed through linear interpolation.
6. (Previously Presented) A method according to claim 3, wherein the at least two regions comprise varying degrees of authenticity.
7. (Currently Amended) The method of claim 1, wherein the input data further comprises [further comprising receiving] at least one optional transform parameter [with which the authentic and spurious probability distributions are combined].
8. (Previously Presented) The method of claim 1, wherein the normalized scale is linear in cumulative probability.
9. (Previously Presented) The method of claim 1, wherein the at least two regions comprise a false-rejection region and a false-acceptance region, and wherein the normalized scale is linear in a ratio of the false-rejection region to the false-acceptance region.
10. (Currently Amended) A [pattern recognition] system adapted to classify [a plurality of items] an item of unknown classification from at least one class of interest as either authentic or spurious, comprising:

a pattern recognition system adapted to receive input data representing items of known classification and to generate an output representing class-specific probability distributions based on the received input data;

a transformer constructor adapted to receive [input in the form of class-specific probability distributions] the output of the pattern recognition system and construct a transform for each class of interest based thereon; and

a transformer adapted to receive and automatically transform the class-specific probability distributions onto a normalized scale based on the transform for the at least one class of interest, the scale having a plurality of values indicative of the authentic or spurious nature of the item of unknown classification and from which the item can be classified.

11. (Currently Amended) [A pattern recognition] The system according to claim 10, further comprising decision criteria selection means for selectively [defining] selecting at least one decision [rule] criteria based on the normalized scale and independent from the class-specific probability distributions from which the item[s] of unknown classification [are modeled] is classified.

12. (Currently Amended) The [pattern recognition] system of claim 10, wherein the transformer constructor comprises means for combining the class-specific probability distributions.

13. (Currently Amended) The [pattern recognition] system of claim 12, wherein the transformer comprises:

means for defining at least two regions of the combined class-specific probability distributions; and

means for mapping the at least two regions onto the normalized scale.

14. (Currently Amended) The [pattern recognition] system of claim 10, wherein the values of the normalized scale range[s] from 0 to 100.

15. (Currently Amended) The [pattern recognition] system of claim 1, wherein the transformer constructor is further adapted to receive input in the form of at least one optional transform parameter.

16. (Currently Amended) The [pattern recognition] system of claim 13, wherein the at least two regions represent varying degrees of authenticity.

17. (Currently Amended) The [pattern recognition] system of claim 10, wherein the normalized scale is linear in cumulative probability.

18. (Currently Amended) The [pattern recognition] system of claim 13, wherein the at least two regions comprise a false-rejection region and a false-acceptance region, and wherein the normalized scale is linear in a ratio of the false-rejection region to the false-acceptance region.

19. (Currently Amended) The [pattern recognition] system of claim 11, wherein the at least one decision [rule] criteria defines a single threshold number from which to determine whether the item of unknown classification is authentic or spurious.

20. (Currently Amended) A method of classifying [a plurality of items] an item of unknown classification from at least one class of interest as authentic or spurious, comprising:

receiving a plurality of output statistics from a pattern recognition system;

constructing a transform[er] for each class of items based on the output statistics;

applying the transform to the item of unknown classification whereby a new decision space is created; and

transforming the decision space into a normalized scale [whereby the item of unknown classification is classified] having a plurality of values indicative of the authentic or spurious nature of the item and from which the item can be classified.